



**PATENT**

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**Inventor(s):** Heineman, Ray D.; Guleff, Samuel J.

**Serial No.:** 10/604,118

**Art Unit:** 2627

**Customer:** 20874

**Examiner:** Chen, Tianjie

**Title:** MAGAZINE-BASED DATA CARTRIDGE LIBRARY

**DECLARATION PURSUANT TO 37 C.F.R. § 1.132**

I, Matthew Thomas Starr, under penalty of perjury pursuant to 18 U.S.C. § 1001, hereby state that these facts are known to me personally:

1. I am a degreed electrical engineer, and hold a Bachelors of Science in Electrical Engineering degree from the University of Colorado, Colorado Springs. I also have 16 years of data storage industry experience. I am a named inventor on three United States Patents. I am currently the Vice President of Engineering and Chief Executive Officer at Spectra Logic Corp. Though I am not an inventor of the subject matter of the patent application identified above, I am aware of the subject matter and the state of the art at the time of that subject matter was invented.

2. I understand that claims 1 and 56-58 of the present patent application (U.S. Serial No. 10/604,118) have been rejected as being obvious over the combination of U.S. Patent No. 5,442,500 to Hidano in view of U.S. Patent No. 5,818,723 to Dimitri.

3. One of ordinary skill in the art at the time the subject matter of claims 1 and 56-58 would not have been motivated to combine Hidano with Dimitri for at least the reason that Hidano and Dimitri are directed entirely to solving different problems.

4. Specifically, Hidano is directed to a library capable of increased capacity with add-on rack units. Hidano's library is a cartridge library for moving cartridges within the

library (to and from cartridge racks). Hidano can introduce new cartridges into the library by way of inserting cartridges in an exchange rack that sits in a drawer which Hidano calls a magazine 30. The cartridges, when in the exchange racks 30, are accessible by the picker when the exchange racks are flush and their respective slots are in line with the slots in the adjacent fixed racks 2a. Hidano is a relatively slow system when in operation because it moves one cartridge at a time via the picker to and from either the fixed or exchange racks. Hidano's library is designed for expanding capacity and not density. Hidano does not take advantage of using magazines in order for "densely" packing a library with cartridges because a limited footprint size is not a primary factor in Hidano's design.

5. On the other hand, Dimitri is directed to an optical disc magazine library where speed and the reduction of down time in the event of a picker/transport assembly failure are the problems sought to be addressed. Dimitri teaches a library having a magazine shelf system in the middle of the library in between two magazine transport assemblies. The magazine shelf has two open faces each accessible by a transport assembly to allow quicker access to the magazines. Dimitri's library design optimizes speed at the expense of both capacity and densely packing a library with cartridges.

6. As a technical matter, even if Hidano and Dimitri are combined, the combination would not have rendered obvious claims 1 and 56-58 at the time the subject matter of those claims were invented. For example, Hidano's library disposes cartridges in cartridge racks on two sides of the library expandability in capacity, to optimize capacity and expandability and having one transport assembly moving the cartridges between the cartridge racks/exchange racks. Dimitri has two transport assemblies on both sides of one magazine shelf for speed at the cost capacity without the ability for expandability. The combination of

Hidano and Dimitri are inherently at odds with one another, and would require a major redesign for a hybrid system to accommodate magazines in the middle of Hidano's library, a different kind of drawer assembly that enables the movement of magazines within Hidano's library, a different arrangement of drive locations to be accessible by both transport assemblies, non-expandable units in the interest of speed, etc. Because in the best of circumstances, a library can be designed with two of three attributes being Speed, Density or Capacity, and in this case Hidano innovated capacity and expandability and Dimitri innovated on speed and not capacity, the combination does not result in improved density or a library with high density that can exchange dense media magazines for interior use. For the same reasons, without modification, combining Hidano with Dimitri would result in a non-functional system.

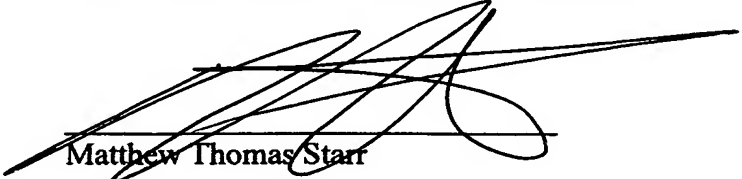
7. The nonobviousness of claims 1 and 56-58 is further supported when considering additional factors such as commercial success of the subject matter of those claims. Specifically, the product line embodying the subject matter has been commercially successful to the tune of sales in the tens of millions of dollars over the last three years.

Cassie Karal



My Commission Expires 03/27/2010

Signed under pains and penalties of perjury,



Matthew Thomas Starr

Dated: 08/22/00